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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,208	11/01/2000	Heikki Wikstedt	796.375USW1	4676

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EXAMINER

TRINH, SONNY

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 07/29/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/704,208

Applicant(s)

WIKSTEDT ET AL.

Examiner

Sonny TRINH

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/01/00 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed on 04/10/01, paper no. 5 has been considered and placed in the application file.

Specification

2. **Claims 6-7, 16-17, 20-21** are objected to because of the following informalities: Claims 6-7, 16-17, 20-21 include "a pre-established criterion **(K)**", the **(K)** do not have any significant meaning (not described in the specification and/or drawing and only create more confusion). It is suggested that Applicant remove the "**(K)**". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 7, 17** provides for the use of an O&M procedure, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it

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merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 7, 17 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-3, 5-6, 10, 11-13, 15-16**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Einola ("Einola"; PCT WO 96/37084) in view of Ali-Vehmas ("Ali-Vehmas"; U.S. Patent Number 6,359,867).

Regarding **claim 1**, with reference to figure 1 and its detailed description, Einola discloses a handover-method in a cellular radio system including base transceiver stations (BTS, fig. 1) and mobile stations (MS, fig. 1), in which cellular radio system at least two frequency bands are used, and wherein each base transceiver station transmits a broadcast intended for all mobile stations in a first frequency range, in which method handover to the second frequency range is started (page 7 line 16 to page 8

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line 6). However, Einola does not disclose the bursts sent by a mobile station (MS) and relating to the handover signaling are measured at the base transceiver station (BTS), and the measurement results are compared with a pre-established criterion, and handover is completed only when the criterion is met.

In an analogous art, Ali-Vehmas teaches a dynamic channel allocation. Ali-Vehmas further teaches the bursts sent by a mobile station (MS) and relating to the handover signaling are measured at the base transceiver station (BTS), and the measurement results are compared with a pre-established criterion, and handover is completed only when the criterion is met (such as free channel), (columns 7-8, specifically lines 6-23 of column 8).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use, within the mobile system of Einola, the burst signal, as taught by Ali-Vehmas, so that a communication handshake between the mobile and the base station can be performed before a handover so that the system can minimize any possible handover error.

Regarding **claim 2**, Ali-Vehmas further teaches that handover is interrupted, when the established criterion is not met, and the communication between mobile station and network is continued on the initial channel, from which the handover started (column 8 line3 6-23).

Regarding **claim 3**, the combination of Einola and Ali-Vehmas discloses the invention but does not disclose that the mobile station (MS) is notified of the handover interruption. However, it is well known in the art that if the handover is not going to be

granted, the base station controller can either ignore the handover request or send a signal to the requesting mobile station informing the mobile station that the handover request has been denied and it would have been obvious for a skilled person in the art to send an interruption to the mobile station to inform it of the denying of the handover request so that overhead signal can be minimized.

Regarding **claim 5**, Ali-Vehmas further teaches that the signal-to-noise ratio of the mobile station's bursts is measured (columns 5-7, specifically lines 37-54 of column 5 and line 45 of column 7 to line 24 of column 8).

Regarding **claim 6**, Einola further teaches that a pre-established criterion is transmitted to the base transceiver station in connection with the channel assignment signaling (51) (page 5, specifically lines 1-11).

Regarding **claim 10**, Einola further teaches that the first frequency range is a frequency range of a lower frequency than the second frequency range (page 7 lines 16-33).

Regarding **claims 11-13, 15-16**, these claims merely reflect the method claim as opposed to the apparatus claim of claims 1-3, 5-6 (respectively) and are therefore rejected for the same reasons.

5. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Einola ("Einola"; PCT WO 96/37084), Ali-Vehmas ("Ali-Vehmas"; U.S. Patent Number 6,359,867) and in further view of Dahlin ("Dahlin"; U.S. Patent Number 5,200,957).

Regarding **claim 4**, the combination of Einola and Ali-Vehmas discloses the invention but does not disclose that the signal level of the mobile station's bursts is measured.

In an analogous art, Dahlin teaches a method for communication and handoff in a cellular radio system. Dahlin further teaches that the signal level of the mobile station's bursts is measured (abstract, claim 17).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use, within the system of Einola and Ali-Vehmas, the measurement of the mobile station's bursts, as taught by Dahlin, so that timing and synchronization can be achieved without interruption when a call is handed over to another base station.

Regarding **claim 14**, this claim merely reflects the method claim as opposed to the apparatus claim of claim 4 and is therefore rejected for the same reasons.

6. **Claims 8-9, 18-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Einola ("Einola"; PCT WO 96/37084), Ali-Vehmas ("Ali-Vehmas"; U.S. Patent Number 6,359,867) and in further view of Dufour et al. ("Dufour"; U.S. Patent Number 5,878,349).

Regarding **claims 8-9**, the combination of Einola and Ali-Vehmas discloses the invention but does not explicitly disclose that assigned for the connection the bursts of connection request set-up and signaling received from the mobile station are measured at the base transceiver station.

In an analogous art, Dufour teaches a call set-up method for communication between analog voice channel and digital control channel. Dufour further teaches the connection request set-up and signaling from the mobile station to the base station (figure 1, column 4, specifically lines 4-18).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use, within the system of Einola and Ali-Vehmas, the call set-up request signal, as taught by Dufour, so that the mobile can assist the system is determining and choosing the best base station for hand-off.

Regarding **claims 18-19**, these claims merely reflect the method claim as opposed to the apparatus claim of claims 8-9 (respectively) and are therefore rejected for the same reasons.

Allowable Subject Matter

7. **Claims 20-21** would be allowable if rewritten or amended to overcome the objection set forth in this Office action.

The following is an examiner's statement of reasons for allowance:

The instant application is directed to a non-obvious improvement over the invention described in Einola ("Einola"; PCT WO 96/37084). The improvement comprises a system and method for Mobile communications system including base transceiver stations and mobile stations, characterized in that the mobile communications system is adapted to start a conditional handover and to supply a criterion for the conditional

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handover to the base transceiver station, to measure the signal of the mobile station's (MS) handover signaling at the base transceiver station (BTS), to compare the measurement results with the pre-established criterion, and to interrupt the handover, when the mobile station signal as a result of the comparison does not meet the pre-established criterion.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, 6th Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonny Trinh whose telephone number is (703) 305-1961. The examiner can normally be reached Monday through Thursdays from 7:00 am to 4:00 p.m., and on alternate Fridays.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Sonny Trinh

**SONNY TRINH
PATENT EXAMINER**

S. T.

Patent Examiner
7/24/03